

CLASSIFICATION: **UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: <b>February 2004</b>				
APPROPRIATION/BUDGET ACTIVITY <b>OTHER PROCUREMENT, NAVY/BA-2</b>							P-1 ITEM NOMENCLATURE <b>Cooperative Engagement Capability (CEC)/260600</b>					
Program Element for Code B Items: <b>0603755N (FY 1994-97); 0603658N (FY 1998-07)</b>							Other Related Program Elements <b>N/A</b>					
	2002 and Prior	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		To Complete	Total
QUANTITY	<b>23</b>		<b>6</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>4</b>		<b>2</b>	<b>54</b>
COST (In Millions)	<b>\$327.1</b>		<b>\$70.1</b>	<b>\$66.6</b>	<b>\$57.5</b>	<b>\$46.7</b>	<b>\$46.5</b>	<b>\$62.0</b>	<b>\$49.8</b>		<b>\$57.3</b>	<b>\$783.6</b>
SPARES COST (In Millions)	<b>\$13.3</b>		<b>\$2.9</b>	<b>\$2.1</b>	<b>\$4.6</b>	<b>\$3.0</b>	<b>\$11.0</b>	<b>\$5.2</b>	<b>\$0.7</b>		<b>Cont.</b>	<b>Cont.</b>

A. (U) Mission Description and Budget Item Justification: Cooperative Engagement Capability (CEC) significantly improves Battle Force Anti-Air Warfare (AAW) capability by coordinating all Battle Force AAW sensors into a single, real-time, composite track picture capable of fire control quality. CEC distributes sensor data from each ship and aircraft, or cooperating unit (CU), to all other CUs in the battle force through a real-time, line of sight, high data rate sensor and engagement data distribution network. CEC is highly resistant to jamming and provides accurate gridlocking between CUs. Each CU independently employs high capacity, parallel processing and advanced algorithms to combine all distributed sensor data into a fire control quality track picture which is the same for all CUs. CEC data is presented as a superset of the best AAW sensor capabilities from each CU, all of which are integrated into a single input to each CU's combat weapons system. CEC will significantly improve our Battle Force defense in depth, including both local area and ship defense capabilities against current and future AAW threats. Moreover, CEC will provide critical connectivity and integration of over-land air defense systems capable of countering emerging air threats, including land attack cruise missiles, in a complex littoral environment.

(U) CEC consists of the Data Distribution System (DDS), the Cooperative Engagement Processor (CEP), and Combat System modifications. The DDS encodes and distributes ownship sensor and engagement data, is a high capacity, jam resistant, directive system providing a precision gridlocking and high throughput of data. The CEP is a high capacity distributed processor that is able to process force levels of data in near real-time. This data is passed to the ship's combat system as high quality data, which the ship can use to cue its onboard sensors to engage targets without actually tracking them.

CEC is planned for shipboard installations at various Naval and commercial shipyards aboard CG, DDG, CV/CVN and LHD ship classes and at land based test sites during scheduled ship availability periods.

CEC was approved for entry into Engineering and Manufacturing Development (E&MD) in May 1995. Eleven (11) Advanced Development Models (ADM) and Engineering Development Models (EDM), and eleven (11) Pre-Production Units (PPU) were purchased under the development contract.

NOTE: No ERF,D funds.

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WEAPONS SYSTEM COST ANALYSIS P-5							Weapon System						DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY							ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD								
OTHER PROCUREMENT, NAVY/BA-2							B	Cooperative Engagement Capability (CEC)/A2UC BLI: 260600								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS													
			2002 and Prior	FY 2003			FY 2004			FY 2005						
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost				
UC001	Coop. Eng. Transmitting/Proc. Sys. (CETPS) (AN/USG-2)	B	201,506	6	8,300	49,803	4	9,355	37,421	3	8,152	24,455				
UC002	AN/UYQ-70 Display	A	21,494													
UC830	Production Engr. Support	A	31,205			6,106			6,200			6,299				
UC004	ECP/Kit Procurement	A	23,267			8,313			9,624			13,981				
UC005	Non-recurring Depot Cost		4,500													
UC006	VISTA Training		700													
UC007	CETPS (AN/USG-3) (Airborne)	B	0													
UC008	Supply Support		6,094			0			0			0				
UC51N	INSTALLATION: FMP		24,049			5,846			13,352			12,796				
UC61N	Non-FMP		14,291													
			327,106			70,068			66,597			57,531				

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<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>					Weapon System			A. DATE <b>February 2004</b>			
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE					SUBHEAD	
<b>OTHER PROCUREMENT, NAVY/BA-2</b>					<b>Cooperative Engagement Capability (CEC)/BLI: 260600</b>					<b>A2UC</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE	
<b><u>FY 2003</u></b> AN/USG-2	6	8,300	Arlington, VA	Dec-02	FFP	Raytheon Sys. Co., St. Petersburg, FL	May-03	Nov-04	Yes	N/A	
<b><u>FY 2004</u></b> AN/USG-2	4	9,355	Arlington, VA	Jul-03	FFP	Raytheon Sys. Co., St. Petersburg, FL	Oct-03	Apr-05	Yes	N/A	
<b><u>FY 2005</u></b> AN/USG-2	3	8,152	Arlington, VA	Jul-04	FFP	Raytheon Sys. Co., St. Petersburg, FL	Oct-04	Apr-06	Yes	N/A	
D. REMARKS											

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P3A INDIVIDUAL MODIFICATION																						
MODELS OF SYSTEM AFFECTED: <u>AN/USG-2</u>				TYPE MODIFICATION: <u>BGAAW Improvement</u>				MODIFICATION TITLE: <u>CETPS</u>														
DESCRIPTION/JUSTIFICATION:																						
Battle Group Anti-Air Warfare (AAW) Improvement																						
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: <u>M/S II (May 95) M/S III (2Q FY 2002) TDP AVAIL (Sep 98)</u>																						
	<u>FY 2002 &amp; Prior</u>				<u>FY 2003</u>		<u>FY 2004</u>		<u>FY 2005</u>		<u>FY 2006</u>		<u>FY 2007</u>		<u>FY 2008</u>		<u>FY 2009</u>		<u>TC</u>		<u>TOTAL</u>	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
<u>FINANCIAL PLAN (IN MILLIONS)</u>																						
<u>RD&amp;E</u>	22	1691.4				106.0		86.7		103.5		114.0		67.3		63.6		63.6		Cont.	22	Cont.
<u>PROCUREMENT</u>																						
INSTALLATION KITS																						0.0
INSTALLATION KITS - UNIT COST																						0.0
INSTALLATION KITS NONRECURRING																						0.0
EQUIPMENT (AN/USG-2)	17	148.6			6	49.8	4	37.4	3	24.5	3	18.5	3	20.3	6	33.9	4	25.1	2	13.2	48	371.3
EQUIPMENT (AN/USG-3)																						0.0
ENGINEERING CHANGE ORDERS																						0.0
SUPPLY SUPPORT		6.1																				6.1
TRAINING EQUIPMENT (AN/USG-2)	6	52.9																			6	52.9
SUPPORT EQ. (VISTA Trng)		0.7																				0.7
OTHER (N/R Depot Standup)		4.5																				4.5
OTHER (ECP/Kit Procurement)		23.3				8.3		9.6		13.9		13.6		14.0		13.9		9.2		8.6		114.4
OTHER (Production Engr. Support)		31.2				6.1		6.2		6.3		6.4		6.5		6.6		6.8		6.9		83.0
INTERIM CONTRACTOR SUPPORT																						0.0
INSTALL COST *		29.8				5.9		13.4		12.8		8.2		5.7		7.6		8.7		28.6		120.7
TOTAL PROCUREMENT	23	297.1	0	0.0	6	70.1	4	66.6	3	57.5	3	46.7	3	46.5	6	62.0	4	49.8	2	57.3	54	753.6

\* Includes FMP and Non-FMP

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P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: AN/USG-2 MODIFICATION TITLE: CETPS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: 12 MonthsPRODUCTION LEADTIME: 18 MonthsCONTRACT DATES: FY 2002 May 2002 FY 2003 May 2003 FY 2004 October 2003 FY 2005 October 2004DELIVERY DATE: FY 2002 November 2003 FY 2003 November 2004 FY 2004 April 2005 FY 2005 April 2006

(\$ in Millions)

Cost:	Prior Years				FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS	12	29.4			4	4.5		0.0		0.9	1	1.4									17	36.2
FY 2002 EQUIPMENT		0.4			1	1.0	5	6.3													6	7.7
FY 2003 EQUIPMENT						0.3	2	5.3	4	6.9											6	12.5
FY 2004 EQUIPMENT						0.1		1.8	2	3.0	2	3.1									4	8.0
FY 2005 EQUIPMENT										2.0	1	2.6	2	3.1							3	7.7
FY 2006 EQUIPMENT											1.1	1	2.1	2	4.2						3	7.4
FY 2007 EQUIPMENT													0.5		2.5	3	5.4				3	8.4
FY 2008 EQUIPMENT															0.9	2	3.3	4	14.0		6	18.2
FY 2009 EQUIPMENT																		4	12.0		4	12.0
TO COMPLETE																		2	2.6		2	2.6

INSTALLATION SCHEDULE:

		FY 2002 & Prior				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
In	12	1	1	2	1	2	2	1	2	1	2	1	2	0	2	1	1	0	1	1	1	1	0	0	1					10	54				
Out	12	1	1	2	1	2	2	1	2	1	2	1	2	0	2	1	1	0	1	1	1	1	0	0	1					10	54				

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